

WHAT IS CLAIMED IS:

- 1 1. A computer implemented method for provisioning broadband service in a
2 Point-to-Point Protocol over Ethernet (PPPoE) network, comprising:
3 randomly choosing a username from a list of usernames stored on a
4 modem;
5 transmitting an authentication request from said modem to a
6 Broadband Remote Access Server (BRAS) over a PPPoE network, where
7 said BRAS is configured to load balance said authentication request between
8 multiple Broadband Service Nodes (BSNs); and
9 receiving authorization from at least one of said multiple BSNs.
- 1 2. The method of claim 1, further comprising, prior to said receiving step, the
2 steps of:
3 load balancing said authentication request between said multiple
4 Broadband Service Nodes (BSNs);
5 transmitting said authentication request to one of said multiple BSNs
6 determined by said load balancing.
- 1 3. The method of claim 1, further comprising, prior to said transmitting step, the
2 step of establishing a PPPoE session.
- 1 4. The method of claim 1, further comprising, prior to said transmitting step, the
2 steps of:
3 requesting only a single identifier from a user of a client computer;
4 receiving said identifier; and
5 storing said identifier.
- 1 5. A method of claim 1, wherein said receiving step comprises acquiring at least
2 one temporary dynamic Internet Protocol (IP) address.
- 1 6. The method of claim 5, further comprising:
2 transmitting a configuration request to an Internet Service Provider
3 (ISP), where said configuration request is addressed from said dynamic IP
4 address;

5 receiving full configuration details from said ISP, where said full
6 configuration details include a static IP address, and where said full
7 configuration details are addressed to said dynamic IP address; and
8 automatically configuring said modem based on said full configuration
9 details.

1 7. A system for provisioning broadband service in a Point-to-Point Protocol Over
2 Ethernet (PPPoE) network, comprising:
3 at least one client computer;
4 a Broadband Remote Access Server (BRAS);
5 multiple Broadband Service Nodes (BSNs) coupled to said BRAS;
6 an authentication server coupled to each one of said multiple BSNs;
7 a modem coupled between said client computer and said BRAS, said
8 modem including a memory comprising:
9 a list of usernames;
10 instructions for randomly choosing a username from
11 said list of usernames;
12 instructions for transmitting an authentication request
13 from said modem to said BRAS over a PPPoE network, where
14 said BRAS is configured to load balance said authentication
15 request between said multiple BSNs; and
16 instructions for receiving authorization from at least one
17 of said multiple BSNs.

1 8. The system of claim ¹8, further comprising:
2 a Digital Subscriber Line Access Multiplexor (DSLAM) coupled
3 between said modem and said BRAS; and
4 an Asynchronous Transfer Mode (ATM) network coupled between
5 said DSLAM and said BRAS.

1 9. The system of claim 8, wherein said BSNs are coupled to the Internet.

1 10. The system of claim 8, wherein said memory further comprises a generic
2 password.

1 11. The system of claim 8, wherein said BRAS includes a memory comprising:
2 instructions for load balancing said authentication request between
3 said multiple Broadband Service Nodes (BSNs);
4 instructions for transmitting said authentication request to one of said
5 multiple BSNs determined by said load balancing.

1 12. A computer program product for use in conjunction with a computer system
2 for provisioning broadband service in a Point-to-Point Protocol Over Ethernet
3 (PPPoE) network, the computer program product comprising a computer readable
4 storage and a computer program stored therein, the computer program comprising:
5 instructions for randomly choosing a username from a list of
6 usernames stored on a modem;
7 instructions for transmitting an authentication request from
/ 8 said modem to said BRAS over a PPPoE network, where said BRAS
9 is configured to load balance said authentication request between
10 said multiple BSNs; and
11 instructions for receiving authorization from at least one of said
12 multiple BSNs.